SOURCE AND RELIABILITY OF THE ESTIMATES

Source of Data. The estimates for the school enrollment population for 1975 are based on data obtained in October of 1975 in the Current Population Survey of the Bureau of the Census. The sample is spread over 461 areas comprising 923 counties and independent cities with coverage in each of the 50 States and the District of Columbia. In the sample, approximately 47,000 occupied households are eligible for interview each month. Of this number, 2,000 occupied units, on the average, are visited but interviews are not obtained because the occupants are not found at home after repeated calls or are unavailable for some other reason. In addition to the 47,000, there are also about 8,000 sample units in an average month which are visited but are found to be vacant or otherwise not to be interviewed.

The estimating procedure used in this survey involved the inflation of the weighted sample results to independent estimates of the total civilian noninstitutional population of the United States by age, race (White, Black, and other), and sex. These independent estimates are based on statistics from the 1970 Census of Population; statistics of births, deaths, immigration and emigration; and statistics on the strength of the Armed Forces.

Reliability of the Estimates. Since the CPS estimates in this report are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions and enumerators. There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. For estimates in this report indications of the magnitude of sampling error are provided but the extent of nonsampling error is unknown. Consequently, particular care should be exercised in the interpretation of figures based on a relatively small number of cases or on small differences between estimates.

Sampling variability. The standard errors presented in table B are primarily measures of sampling variability, that is, of the variations that occur by chance because a sample rather than the whole of the population was surveyed. As calculated, the standard error also partially measures the effect of certain response and enumeration errors, but it does not measure any systematic biases in the data. The chances are about 68 out of 100 that an estimate from the survey differs from a complete census figure by less than the standard error. The chances are about 90 out of 100 that this difference would be less than 1.6 times the standard error, and chances are 95 out of 100 that the difference would be less than twice the standard error.

All statements of comparison in the text are significant at a 1.6 standard error level or better, and most are significant at a level of more than 2.0 standard errors. This means that for most differences cited in the text, the estimated difference is greater than twice the standard error of the difference. Statements of comparison qualified in some way (e.g., by the use of the phrase, "some evidence") have a level of significance between 1.6 and 2.0 standard errors.

Note when using small estimates. Percent distributions are shown in the report only when the base of the percentage is greater than 75,000. Because of the large standard errors involved, there is little chance that percentages would reveal useful information when computed on a smaller base. Estimated totals are shown, however, even though the relative standard errors of these totals are larger than those for the corresponding percentages. These smaller estimates are provided primarily to permit such combinations of the categories as serve each user's needs.

Standard Errors for Data Based on CPS. Since this is an advance report, standard errors are provided in table B for estimated numbers of persons and estimated percentages for only certain characteristics which are considered the most important among the data in the report.

More detailed standard error tables for each characteristic of interest, for estimated numbers of persons or families and estimated percentages, are provided in the detailed report for 1974 in this series. A more complete source and reliability statement for the 1975 data will be published with the forthcoming 1975 main report.

Standard Errors of Estimated Numbers and Estimated Percentages. The forthcoming detailed report will include formulas (1) and (2) below with which standard errors of estimated numbers and estimated percentages, respectively, can be computed directly. These formulas are as follows:

$$\sigma_x = \sqrt{ax^2 + bx} \quad . \qquad \text{(F.1)}$$

Here x is the size of the estimate and a and b are the parameters associated with the characteristic.

$$\sigma_{x,p} = \sqrt{\frac{b}{x} \cdot p \cdot (100\text{-}p)} \qquad \text{(F.2)}$$

Here x is the size of the subclass of the population which is the base of the percentage, p is the percentage ($0 \leq p \leq 100$), and b is the parameter associated with the characteristic.

Table A below provides the values of the a and b parameters that are used in formulas (1) and (2), to create standard errors of estimated numbers of persons and estimated percentages.

Table A. Parameters to be Used for Each School Enrollment Characteristic

Characteristic	Parameters	
	a	b
Educational attainment and school enrollment:		
Total or White	-0.000016	2064.3452
Black or other	-0.000186	2791.7805
Kindergarten and nursery school enrollment	-0.000126	1738.0412

Table B. Standard Errors of Estimated Numbers and Estimated Percentages of Persons, Total, White, and Black Population 3 to 34 Years Old Enrolled in School: October 1975

(Numbers in thousands. 68 chances out of 100)

Enrollment and age	Estimated numbers of persons			Standard errors of estimated numbers of persons		
	Total	White	Black	Total	White	Black
TYPE OF ENROLLMENT						
Total enrolled	60,969	51,430	8,400	355	326	102
Nursery	1,748	1,432	276	52	47	22
Private	1,174	1,040	105	43	41	13
Kindergarten	3,393	2,845	468	67	63	28
Private	542	483	42	30	28	9
Elementary	30,446	25,412	4,509	251	229	94
Private	3,279	3,059	165	82	79	21
High school	15,685	13,224	2,199	180	165	72
Private	1,178	1,110	59	49	48	13
College	9,697	8,516	948	136	128	50
Private	1,994	1,792	166	64	60	21
Full time	7,098	6,180	740	118	110	44
	Estimated percent enrolled			Standard errors of estimated percentages		
AGE						
3 and 4 years	31.5	30.8	34.2	1.3	1.5	3.4
5 and 6 years	94.7	94.8	94.4	0.4	0.8	1.0
7 to 13 years	99.3	99.3	99.2	0.1	0.1	0.2
14 and 15 years	98.2	98.3	97.4	0.2	0.2	0.8
16 and 17 years	89.0	89.3	86.9	0.5	0.6	1.8
18 and 19 years	46.9	46.5	47.1	1.2	1.3	3.8
20 and 21 years	31.2	31.8	27.1	1.4	1.5	4.6
22 to 24 years	16.2	16.3	14.2	1.3	1.3	4.4
25 to 29 years	10.1	10.0	9.4	1.1	1.1	3.8
30 to 34 years	6.6	6.6	7.1	1.2	1.3	4.2